# Chicago to Omaha Regional Passenger Rail Planning Study

April 30, 2012







#### Agenda

- Introduction & Study Overview
  - Amanda Martin, Iowa DOT, Office of Rail Transportation
- Draft Alternatives Analysis findings
  - Mark Hemphill, HDR Inc.
- Next Steps
  - Amanda Martin, Iowa DOT, Office of Rail Transportation







#### What is the study?

- The Iowa Department of Transportation, in cooperation with the Federal Railroad Administration (FRA) and Illinois Department of Transportation, is studying the feasibility of expanding existing passenger rail service and developing a new regional passenger rail service from Chicago, Ill., through Iowa to Omaha, Neb.
- This study will be a major step in assessing the viability of a regional intercity passenger rail system serving lowa and the Midwest through this corridor.







## Purpose of the study

- The purpose of this study is to:
  - Evaluate potential route alternatives.
  - Evaluate levels of service and ridership.
  - Analyze environmental impacts.
  - Determine a preferred Chicago to Omaha passenger rail route alternative for regional intercity passenger rail service.







### Study costs

- Overall cost of the planning study: \$2 million
- Costs are allocated between the State of Iowa and FRA.
- Implementation costs will be identified during the study.







# What would regional passenger rail service provide?

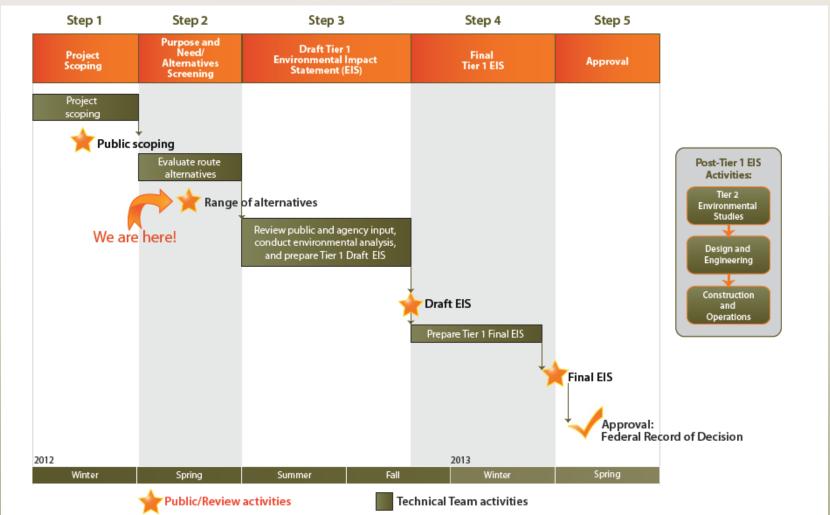
- Reduced travel times compared to automobile.
- Scheduled and convenient passenger rail service.
- Reduced cost compared to air and automobile.
- Improved travel reliability, particularly in inclement weather versus other travel modes.
- Improved passenger ride quality and comfort.
- Reduced use of highways and airports.







#### Schedule











# Why is this planning process necessary?

- This process is required by federal law if any federal funds are used to implement passenger rail between Chicago and Omaha.
- The railroad companies whose tracks might host the service require assurance that their freight shippers will not be harmed.
- The communities the passenger trains might pass through need to understand how the service might affect them.
- The state needs to understand the full lifetime cost of the service.







#### Public involvement to-date

Tool	Impact		
Website Visits	5,351 unique visitors		
Online Meeting Visits	3,799 unique visitors		
Mailing List Requests	586		
Comments	1,275		
Facebook	442 shares, 441 liked/shared/commented		
Twitter	117 tweets/40 retweet, 126,900 impressions		







#### Route alternatives analysis

- Process is defined by the National Environmental Policy Act
- Goal of Process
  - Identify "reasonable and feasible" routes
  - Eliminate "unreasonable and infeasible" routes
- Routes deemed reasonable and feasible are evaluated in detail in Tier 1 Environmental Impact Statement







#### What is "reasonable and feasible?"

- The route must be able to deliver a passenger rail service that meets the Purpose and Need:
  - Competitive and attractive to travelers:
    - Convenient travel times
    - Sufficient frequency of service
    - Serves high population
    - High Reliability
    - High revenue (ticket sales)
  - Technically and economically feasible
    - Lowest reasonable capital, operating and maintenance costs
  - Environmentally feasible
    - Environmental impacts minimized







#### Initial route identification

- Six existing routes between Chicago and Omaha were analyzed:
  - Five are intact
  - One is partially abandoned
  - All previously hosted passenger trains at speeds of up to about 110 mph
- No "greenfield" routes were analyzed
  - Greenfield routes needed for speeds higher than 110 mph, but
  - Speeds higher than 110 mph are not required
  - Greenfield routes are very high cost

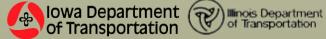


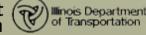




# Chicago-Omaha route alternatives











## Alternatives analysis - general approach

Category	Coarse-level Criteria Fine-level Criteria		
Purpose and Need	<ul> <li>Population proximity</li> <li>Competitive and attractive modes of travel</li> </ul>	<ul> <li>Ridership and revenue</li> <li>Cost</li> <li>Available alternative services</li> <li>Travel times</li> </ul>	
Environmental Concerns	<ul><li>Major challenges</li><li>Sensitive area impacts</li><li>Right-of-way impacts</li></ul>	<ul> <li>Streams</li> <li>Wetlands</li> <li>Farmlands</li> <li>Threatened and endangered species</li> <li>Cultural resources</li> </ul>	<ul> <li>Potential Section 4(f)/6(f) protected properties</li> <li>Environmental justice</li> <li>Noise and vibration</li> <li>Hazardous materials</li> <li>Right-of-way Impacts</li> </ul>
Technical Feasibility	Major construction efforts     Freight train traffic conflicts	• Freight train traffic conflicts	
Technical/Economic Feasibility	•N/A	<ul><li>Alignment</li><li>Structures</li><li>Grade crossings</li></ul>	
Economic Feasibility	• Cost of Implementation	• High-level Project Costs	









#### Route evaluation process

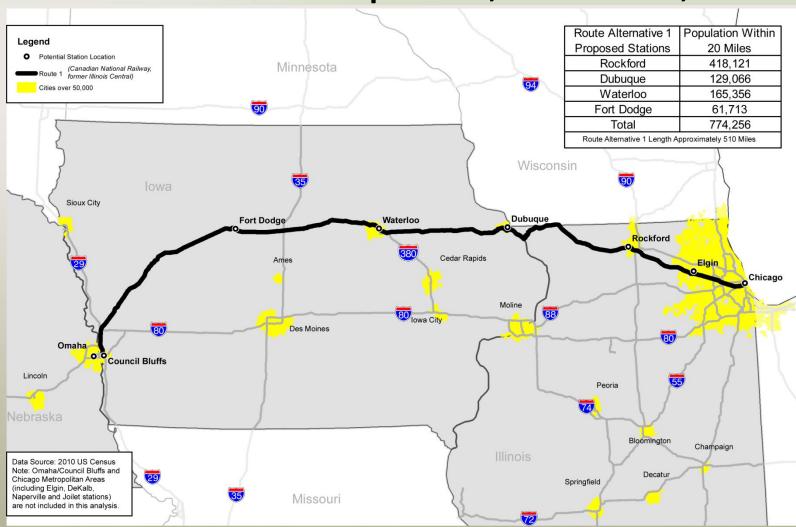
- Steps in Evaluation:
  - Travel time estimate
  - Ridership/revenue forecast
  - Train capacity (track, signal, bridges for existing and future freight + passenger)
  - Infrastructure needs assessment
  - Infrastructure cost estimate
  - Equipment and operating and maintenance cost estimate
  - Environmental impacts assessment
- Result routes are summarized to screen for whether they are reasonable and feasible







## Route 1 – CN Annual Ridership 505,000-715,000

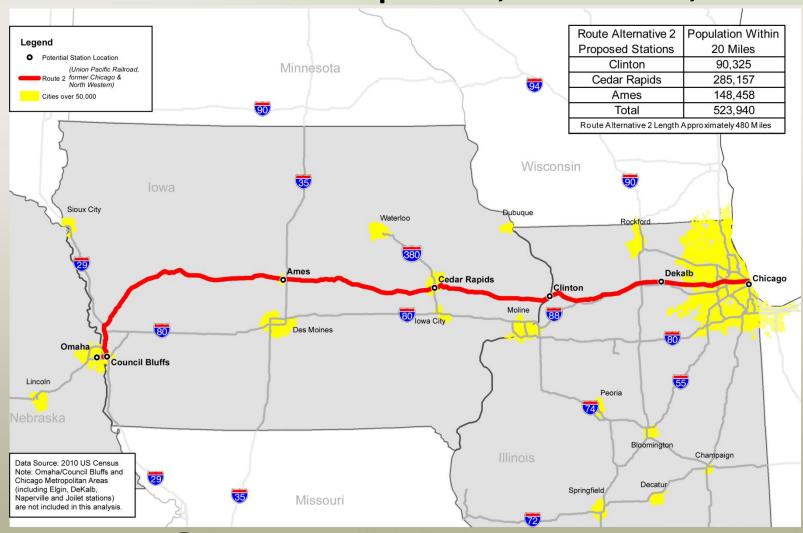








# Route 2 – UP Annual Ridership 375,000-550,000

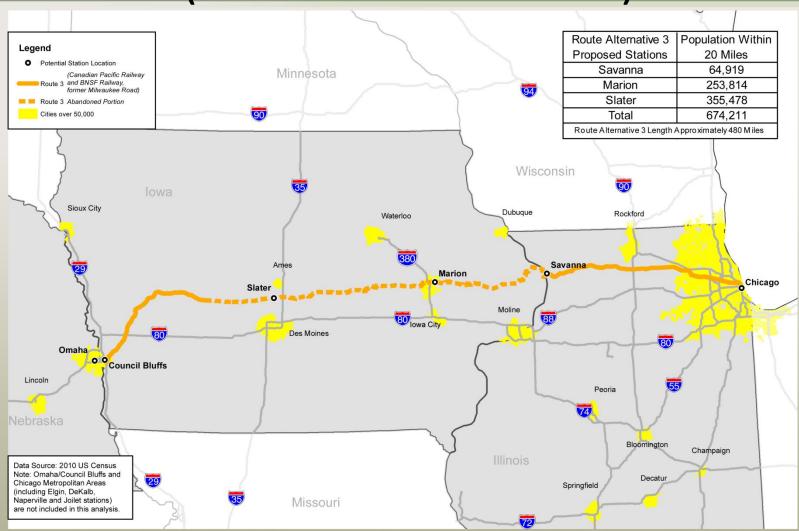








# Route 3 – CP/BNSF (Route screened out)









# Route 4 – CSX/IAIS Annual Ridership 640,000-885,000

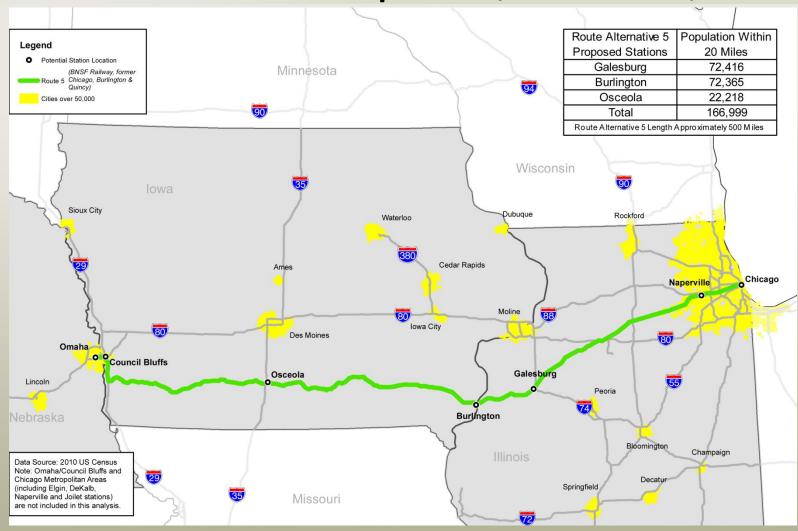








# Route 5 – BNSF Annual Ridership 255,000-370,000

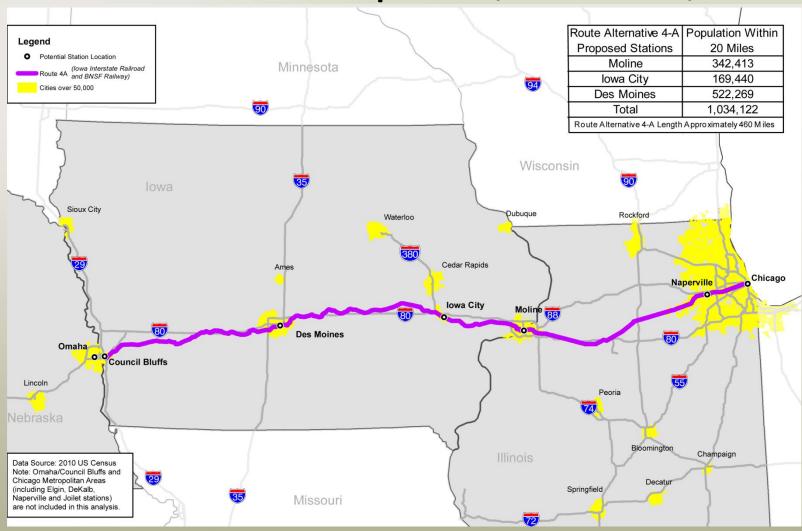








# Route 4-A - BNSF/IAIS Annual Ridership 680,000-935,000



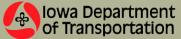






## Draft findings

- Route Alternative 1 CN will not be carried forward to EIS
  - Insufficient ridership and revenue through ticket sales
  - Travel time not competitive with auto or bus
  - High implementation cost
- Route Alternative 2 UP will not be carried forward to EIS
  - Insufficient ridership and revenue through ticket sales
  - Very high implementation cost
- Route Alternative 3 CP/BNSF eliminated at rough-screening level
  - High right-of-way acquisition cost
  - High environmental impacts
- Route Alternative 4 IAIS will not be carried forward to EIS
  - Does not serve Chicago Union Station
  - Connection to CUS not feasible
- Route Alternative 5 BNSF will not be carried forward to EIS
  - Insufficient ridership and revenue through ticket sales
  - Very high implementation cost
- Route Alternative 4-A IAIS/BNSF will be carried forward to EIS
  - Highest ridership and revenue through ticket sales
  - Almost the fastest
  - Almost the least expensive
  - No-build alternative will be carried forward to EIS to serve as a baseline and meet NEPA requirements of evaluating impacts
    of no action









### Next steps for preferred route

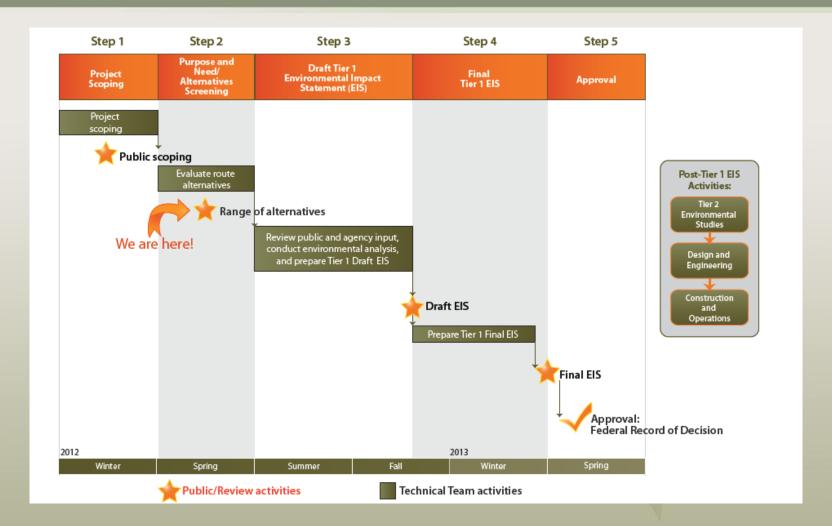
- Assessment of existing conditions
  - Detailed evaluation of existing infrastructure and freight traffic
  - Station location analysis
  - Station connectivity analysis
- Conceptual engineering
  - Cost estimate
  - Determine environmental footprint
- Environmental evaluation
  - Tier 1 level analysis only
  - Chicago, Omaha, and final station locations will be addressed during Tier 2
- Service development planning
  - Initial operations planning
  - Initial stations planning







### Study next steps









#### Public contact information

- Online meeting, website, and the community toolkit at www.iowadot.gov/chicagotoomaha
- In-person meetings
- Hotline at 1-800-488-7119
- E-mail at email@chicagotoomaha.com
- Send mail to:

Iowa Department of Transportation

Attn: Tamara Nicholson

800 Lincoln Way

Ames, Iowa 50010





